

RESULT	3
LOCUS	BG574651
DEFINITION	BG574651 806 bp mRNA linear EST 10-APR-2001
ACCESSION	602596653p1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:4705620 5',
VERSION	BG574651
KEYWORDS	BG574651.1 GI:13582304
SOURCE	EST.
ORGANISM	human.
	Homo sapiens
	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
	Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE	1 (bases 1 to 806)
AUTHORS	NIH-MGC http://mgc.nci.nih.gov/.
TITLE	National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL	Unpublished (1999)
COMMENT	Contact: Robert Strausberg, Ph.D. Email: cga@bbs.femail.nih.gov Tissue Procurement: DCTD/DBP cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: http://image.lnl.gov Plate: LLM10572 row: 1 column: 13 High quality sequence stop: 806. Location/Qualifiers 1. 806 /organism="Homo sapiens" /db_xref="taxon:9606" /clone="IMAGE:4705620" /clone_lib="NIH_MGC_87" /tissue_type="mammary adenocarcinoma, cell line" /lab_host="DH10B (phage-resistant)" /note="Organ: breast; Vector: pCMV-Sport6; Site: 1: NotI; Site: 2: SalI; Cloned unidirectionally; oligo-dT primed. Average insert size 1.383 kb. Library enriched for full-length clones and constructed by Life Technologies. Note: This is a NIH-MGC Library."
BASE COUNT	263 a 155 c 211 g 177 t
ORIGIN	

Query Match	89.3%	Score 780:	DB 10:	Length 806:
Best Local Similarity	99.9%	Pred. No. 3.7e-152:		
Matches 791:	Conservative 0:	Mismatches 0:	Indels 1:	Gaps 1:
QY 5	gtgaagggttaacaagaatgtgcagccagagacggctgtagctccataagctaaagcttgcgaa	64		
Db 15	GTGAGGGGTTAACAAAGATGTGGCAGCCGAGCGGTGGAGCTCCATTAAGCTTAAGCTTCCGAA	74		
OY 65	ctaaagcaagaatgtcttgcctgtgtgttggtagaccaagggaataaagaatctatc	124		
Db 75	CTAAAGCAAGAATGCTCTTGTCTCTGCTGGTTTGGAGACCAAGGGAATTAACCAAGATCTTATC	134		
OY 125	cacaaaccacagacatctcttgaagaacaatgtctgaagagggggcaaatgaagaagatfta	184		
Db 135	CACACACTTCCAGGCAATATCTTGAAGAAATGCTGAAGAGGAGGCCAAATGAAGAAGATGTA	194		
OY 185	ctggagaga tgaacaacagagaaagaacaaagcccatlttagctctccctgtccaagaggaa	244		
Db 195	CTGGGAGATGAAACACAGAGGAAGAAGAAACAAAGCCCATTTGAGCTCCCTGTCOAAGAGGAA	254		
OY 245	gaaccccttgaaaaaactgttga tgtgtgcagcagagaagaagtgtgtgaaataacatct	304		
Db 255	GAACCCCTTGAAAAACCTGTGATGTGCACACAGGAAGAAAGTGCTAAAAATTACATCT	314		
OY 305	gaataaccacagactctgagagaatgcagaagagggtgtgaacatltatctactctgtgac	364		
Db 315	GAATATCCACACAGACTCGAAGAGATGAGAGAGAGGCTGACCATTTAATGTACTCTGTGAC	374		
OY 365	ttgagaglaagaaagctgtctcgtggcagctagttgttggattcttccacagccaacaa	424		
Db 375	TTGAGAGTAAAGAAAGCTGTCTGGGCACTGAGGTGGATTTCTTCAGTTCCAAACAAA	434		
OY 425	ggtctgtcatctgataaacaaccta tggtttaacttggataagcttgaaggaagagctcaa	484		
Db 435	GGTCTGTATCTGATTAACAAACCTATGGTTTAACTTGGATAGCTGAAAGAAAGAGCTTCAA	494		
OY 485	agatttggtttgaatgtctcttcaatcccaagaaagcttgaagaatgtatgaagaactgaa	544		
Db 495	AGATTGGTTTGAATGTCTCTCTTCAATCTCCAGAAAGTGTGAAGATGATGAGAAACTGAAA	554		
OY 545	aagaggaagagcgaatttggagattgtcaacaagtlcagcttgaacttgaaccacagagat	604		
Db 555	AAGAGGAAGGAGCGCAATTGGGATTTGTCAACAGTTGAGCTGGAACGTGAACCAACAGAGAT	614		
OY 605	acagagggcaagaagaagaaaaagacagagcgttggatgtgctgttgaagaattcct	664		
Db 615	ACAGGGGCAAGAAAGAGAAAAAGACACAGCGCTTTGGGATTCCTGTATGAAAAATTCTCT	674		
OY 665	gatacttctgtctccagtggttttccaatttctctctcttctcttctgtgccaataatgccc	724		
Db 675	GATACTTCTGTCTCCAGTGTGTTTCCATTCTCCTCTTCTTCTTGGTGCACATATATATGCC	734		
OY 725	taaatgcacagtcatagtgcttaagctcgtcctgcg-aatlgagggagca tgaaccaggt	783		
Db 735	TAAATGCACAGTCATGTGCTACTGCTCTGCGCTCGCAATATGAGGAGCATGTATACCCAGGT	794		
OY 784	acatcatgaac 795			
Db 795	ACATCATGAAAC 806			
RESULT 4				
LOCUS	BG910161	783 bp	mRNA	linear
DEFINITION	60280555481 NCI_CGAP_Brn67 Homo sapiens cdna clone IMAGE:4938082			
ACCESSION	BG910161			
VERSION	BG910161.1	GI:14290637		
KEYWORDS	EST.			
SOURCE	human.			
ORGANISM	Homo sapiens			
	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			


```

Db      61 GATGTACTGGAGATGAAACAGAGAGAGAAACAAAGCCCATTTGACTCCCTGTCAA 120
QY      239 gaggaagaacccccctgtaaaacatgtagtgcagcagaagaagatggtgtaaat 298
Db      121 GAGGAAGAACCCCTGAAAGAACTGTGATGTGGCAGCAGAAAGAGTGGTGAAT 180
QY      299 acactctgaatacacacacagactgagaaatgcagaagaagagctgaacgaatcaatgacct 358
Db      181 ACATCTGAAATATCCACACACACTGAGAGATGACAGAAAGAGGCTGAACGATTCATTTACT 240
QY      359 gtgagcttgagagtaagaagaagctgcgcgcagctgaagttggagttcttcagttca 418
Db      241 GTGAGCTTGAGAGTAAGAAAGCTGCTGGCAGCTAGGATTTGGGATTTCTTCAAGTTCCA 300
QY      419 acaaaagctgtatctcgtatacaaaacctatgfttaacttgtagtaactgaagaaga 478
Db      301 ACAAAGGCTGTCATCTGATPACAAACCTATGGTTAACTTGATGAACTGAAGAGAA 360
QY      479 gctcaagatttggtttgtaatgctctcctcaatctccagaagaagctgaagatgataa 538
Db      361 GCTCAAGATTGGTTGATGATGTCCTTCATTCCTCAGAAAGTGTGAAGATGATGAGAAA 420
QY      539 ctgaaaaaagagaagagcatttggagttgtcacaaagttcaagctggaactggaacaca 598
Db      421 CTGAAAAAGAGAGAGAGACGATTTGGGATTTGTACAAAGTTCAAGCTGGAACACACA 480
QY      599 gagataaagagggaagaagaagaagaagaagaagcatttggagttgctgctgataa 658
Db      481 GAGGATPACAGAGGCAAGAAAGAGAAAGACAGAGCCCTTGGATTGGCCGATGAGAAA 540
QY      659 gtctcgtatcttctgctcctcagtgcttccatcttccctctctcttctgtacata 718
Db      541 GTTCTGTAATCTTCTGTCTCCAGGTGTTTCCATTCTCTCTCTCTCTCTGTCACATA 600
QY      719 tatgctaataatgcacagatcatgtgcctacgtccctgcctgcgaatgaggaatgatacc 778
Db      601 TATGCTTAATATGCACAGTCAATGTGCTTCTGCTGCAATGAGGAGCATGTATACC 660
QY      779 caggtacatccatgaacgcgcgcagcagttgactatctgcttccagcttaagttg 838
Db      661 CAGGACTCATGAACTGCGGACACCACTTATGCTGTTGCTTACGCTTTAAGGTTG 720
QY      839 ttgtgttttttttttttttttttttttttttttttttttttttttttttttttt 873
Db      721 TTGTGTTTTTTTGTATGTTGTTGCTTTTAAT 755

RESULT 6
BG533012 783 bp mRNA linear EST 03-APR-2001
LOCUS 602580893P1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:4718711 5',
DEFINITION mRNA sequence.
ACCESSION BG533012 GI:13524551
VERSION BG533012.1
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE 1 (bases 1 to 783)
AUTHORS NIH-MGC http://mgi.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapds-remail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: CLONTECH Laboratories, Inc.
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNLN at:
http://image.lnl.gov
Plate: LNCM1570 row: j column: 24

```

```

FEATURES
    source
        location/Qualifiers
            1..783
                /organism="Homo sapiens"
                /db_xref="taxon:9606"
                /clone="IMAGE:4718711"
                /clone_1lb="NIH_MGC_61"
                /tissue_type="embryonal carcinoma"
                /lab_host="DH10B (T1 phage-resistant)"
                /note="Organ: testis; Vector: pDNR-LIB (Clontech); Site_1:
                SfiI (ggccgctggcc); Site_2: SfiI (ggccataagcc);
                Double-stranded cDNA was prepared from cell line RNA. 5'
                and 3' adaptors were used in cloning as follows: 5'
                adaptor sequence: 5'-CAGGCGCATTTAGGCC-3' and 3' adaptor
                sequence: 5'-ATCTAGAGCCGACCGCCGACATG-dfr(30)BN-3'
                (where B = A, C, or G and N = A, C, G, or T). Average
                insert size 1.75 kb (range 0.9-4.0 kb). 15/15 colonies
                contained inserts by PCR. This library was enriched for
                full-length clones and was constructed by Clontech
                Laboratories (Palo Alto, Ca). Note: this is a NIH_MGC
                Library."
BASE COUNT 257 a 145 c 207 g 174 t
ORIGIN
Query Match 85.8%; Score 749.4; DB 10; Length 783;
Best Local Similarity 98.7%; Pred. No. 8.5e-146;
Matches 777; Conservative 0; Mismatches 6; Indels 4; Gaps 2;
QY 7 gagggtaacaagaatgagcagcgaacggtgagatccataaagctaaagcttgcgaact 66
Db 1 GAGGGTAAACAAGATGGGACCGAGCGGTGAGCTCATAGTAAAGCTTGCCGAAT 60
QY 67 aaagcaagaatgcttgcgtggttggagacaaaggaataaagcaagatcttatcca 126
Db 61 AAAGCAAGATGCTCTTGCCTGCTGTTGGAGACCAAGGAATAAAGCAAGATCTTATCCA 120
QY 127 cagactcagagatattcttgaagaacatgcttaagaagaaggaattgaagaagatgact 186
Db 121 CAGACTCCAGGCATATCTTGAAGAACTGTGTAAGAGGAGGCAATTAAGAAATGATGACT 180
QY 187 ggaagatgaacaagaagaagaagaacaagccattgagctccctgtcaaaagagaaga 246
Db 181 GGGAGATGAAGACAGAGAAAGAAAGAAAGCCCATTTGAGCTCCCTGCAAGAGAGAGA 240
QY 247 accccctgaaaaactgttgaatgtgtgcagcagaagaagaagtgtgtaaatcaatcgtga 306
Db 241 GCCCCTGAAAAAAGCTGTTGATGTGGCAGCAGAGAAAGAGTGAATTAATCAATCTGA 300
QY 307 aataccacagactgagagaatgcagaagaagagctgaacgattcaatgtacctgtgagct 366
Db 301 AATACCAAGACTGAGAGATCAAGAGAGGCTGACGATTCATTAATGTAAGTGTGAGCTT 360
QY 367 ggaagatgaagaagctgtcggcagctaggttttggatttcttcagtccaacaagaag 426
Db 361 GGAGAGTAAGAAAGCTGCTCGGCGAGCTAGGTTGGGATTTCTTCAGTTCCAAAGAAAG 420
QY 427 tctgtcatctgatacaaaacctatgttaactgtgataagctgaaggaagaagctccaag 486
Db 421 TCTGTCACTGTGAATCAAAACCTATGTTAACTTGATTAAGCTGAAGAAAGAGCTCAAG 480
QY 487 atttgattgaatgctcttcaatctccagaagaagctgaagaatgtagaagaactga 546
Db 481 ATTTGGTTGAATGTCTCTCAATCTCCGAAAGTCTGAAGATGAAGAAAGCTGAAGAAA 540
QY 547 gaggaagagcgaatttggatgttcaaaagttcaagctgaactggaactggaacacagagatac 606
Db 541 GAGGAAGAGAGCATTTGGGATTTGTCAAAAGTTCACTGGAATGGACACAGAGAGATAC 600
QY 607 agaggaagaagaagaagaagaagcagcgttggagttgctgtgatagaagaagttctcgtga 666
Db 601 AGAGCAAGAGAGAGAGAAAGAGCAGAGAGCGC-TTGAGGATTTGCTGATGAAGAAAGTCTCTGA 659

```

Oy	667	tacttcgcttcacgaagtcttcacatctctctctctctgtgccaatatgacct	726
Db	660	TACTTCTGCTTCCAGTGTTTCCATTCTCTCTCTCTGTGGTCAATATAGCCCTA	719
Oy	727	aatgcacagtcacgtgcacgcctgcctcgaatgagggacatgtaccccaagtaca	786
Db	720	AATGCACAGTCATGTGCTTACTCTGTCTGCGC---ATGAGGAGCATGTATCCAGGTACA	776
Oy	787	ttccatga 793	
Db	777	TTCCATGA 783	
RESULT	7		
LOCUS	BI460375	776 bp	linear
DEFINITION	603202043b1 NIH_MGC_97 Homo sapiens cDNA clone IMAGE:5267722 5',		
ACCESSION	BI460375		
VERSION	BI460375.1		
KEYWORDS	EST.		
SOURCE	human.		
ORGANISM	Homo sapiens		
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrate; Euteleostomi;		
AUTHORS	Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.		
TITLE	1 (bases 1 to 776)		
JOURNAL	NIH-MGC http://mgc.nci.nih.gov/.		
COMMENT	National Institutes of Health, Mammalian Gene Collection (MGC)		
	Unpublished (1999)		
	Contact: Robert Strausberg, Ph.D.		
	Email: cgabds-remail.nih.gov		
	Tissue Procurement: Miklos Palkovits, M.D., Ph.D.		
	cDNA Library Preparation: Michael J. Brownstein (NHGRI), Shiroki		
	Toshiyuki and Piero Carninci (RIKEN)		
	cDNA library Arrayed by: The I.M.A.G.E. Consortium (LLNL)		
	DNA Sequencing by: Incyte Genomics, Inc.		
	DNA distribution: MGC clone distribution information can be		
	found through the I.M.A.G.E. Consortium/LLNL at:		
	http://image.llnl.gov		
	Plate: LRAM1675 row: f column: 11		
	High quality sequence stop: 775.		
FEATURES	location/Qualifiers		
source	1..776		
	/organism="Homo sapiens"		
	/db_xref="taxon:9606"		
	/clone="IMAGE:5267722"		
	/clone_11b="NIH_MGC_97"		
	/lab_host="DH10B"		
	/note="Organ: testis; Vector: pBluescriptR (modified		
	pBluescript KS+); Site_1: BamHI; Site_2: SalI-XhoI (cgccgac		
); Oligo-dT primed using primer 5'-TTTCTTTTCTTTTCTT-3',		
	size-selected for average insert size 2.2 kb and		
	normalized to R07 5. This is a primary library enriched		
	for full-length clones and constructed using the		
	Cap-trapper method (Carninci, in preparation). Library		
	constructed by M. Brownstein (NIH/NHGRI, National		
	Institutes of Health). Note: this is a NIH-MGC Library."		
BASE COUNT	254 a 146 c 205 g 171 t		
ORIGIN			
Query Match	84.8%; Score 740.2; DB 10; Length 776;		
Best Local Similarity	99.2%; Pred. No. 6,9e-14d;		
Matches	765; Conservative 0; Mismatches 3; Indels 3; Gaps 2.		
Oy	7	gaggggtacaagaatgctgcacccgagacggttgagctcataaagcttcgcgaact	66
Db	5	GAGGGGTAAACAAGATGCGGACCGAGACGCGTGAAGCTAAAGCTTGCCGAAC	64
Oy	67	aaagcaagaatgctgtctgctggttgagagcaagggaataaagcaagatctatatca	126
Db	65	AAAGCAAGAATGCTGTGCTCGTGTGGAGACCAAGGGAATAAAGACTTATATCA	124

FEATURES	LOCATION/Qualifiers
Y127	cgagctccaggaatctcttgaagaacatgctctgaagaaggaaggaatgaagaatgctct 186
Db	125 CAGACTCCAGGCATCTCTTGAAGAACATGCTCTAAGAGAGGCGCAATGTGAACATGTTACT 184
Q1	187 gggagatgaacacagaggaagaagaacaaagcccatgaactccctgtctaaagaggaaga 246
Db	185 GGGAGATGTAACACAGAGGAAGAAACAAGCCCATGTGAGCTCCCTGTCTCAAGAGGAAGA 244
Q1	247 accccctgaaaaaaactgttgtatgtgcacgcagagaagaagaagtgtgtgaataataactctga 306
Db	245 ACCCCCTGAAAAAACGTGTGATGTGGCGACAGAGAAAGAGGGTGAATAATTCATCTGA 304
Q1	307 aataccacagacttgaagaatgcagaagaagggctgaacgatccaatgaactgtgaactt 366
Db	305 AATACCAACAGACTGAGAGATATCCAAAGAGGGCTGACCATTTGTAATCTGTAGCTT 364
Q1	367 ggaagaataaagaagctgtctcgggcagctaggtttggatctcttcagttccaacaagaag 426
Db	365 GGAGAGTAAAGAAAGCTGCTCGGGCAGCTAGTTCGGGATTTCTTCAGTTCACAAACAAAGG 424
Q1	427 tctgtcacctgaatacaaacctatgattgaacttgaatgaatgcgaagaagaagggcctaaag 486
Db	425 TCTGTCACTGTGATACAAACCTATGTGTTAACTTGAATAGCTGAAGGAAAGAGCTCAANG 484
Q1	487 atttggttgaatgtctctctcaatctccagaagaagctgaagaatgaatgaagaactgaaga 546
Db	485 ATTTGGTTGAATGTCTCTTCATCTCCAGAAAGCTGTAAGATGATGAGAAACTGAAGAA 544
Q1	547 gagaagaagaagcatttgggattgtctacaagtctcaactgcgaacttgaaacacagaagatac 606
Db	545 GAGGAGAGAGCCATTGTGGATGTTGCATCAAGATTCACACTGGAATGTGAACCCAGAGAGATAC 604
Q1	607 aagaagcaagaagaagaagaagcagagcgctcttgggaattgcctgaatgaagaagctctga 666
Db	605 AGAGCAAAAGAAAGAGAAAGAAAGCAGAGAGCGCTTGGATTCGCTGATGAAAGTTCCGGA 664
Q1	667 taacttcgtctccagtggttttccaattctctctctctctcttggtac--atatagc 723
Db	665 TACTTTCGTCTCCAGAGGTTTCCCAATTCCTCTCTCTTGTGTCACCATTTATATGC 724
Q1	724 ctaaatgcacagatcatgtgcctcaagtcctgcctgcacgaatgaagagagcatgt 774
Db	725 CTAATTCGACAGTCATGTGCTACTGCTCTGCCGCCCAATGAGGAGGCATGT 775
RESULT 8	
BI255433	887 bp mRNA linear EST 17-JUL-2001
LOCUS	602977928B1 NIH_MGC_12 Homo sapiens CDNA clone IMAGE:5122974 5',
DEFINITION	mRNA sequence.
ACCESSION	BI255433
VERSION	BI255433.1 GI:14808843
KEYWORDS	EST.
SOURCE	human.
ORGANISM	Homo sapiens
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
AUTHORS	Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
TITLE	NIH-MGC http://mgc.nci.nih.gov/.
JOURNAL	National Institutes of Health, Mammalian Gene Collection (MGC)
COMMENT	Unpublished (1999) Contact: Robert Strausberg, Ph.D. Email: cgabbs-r@mail.nih.gov Tissue Procurement: ATCC CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: Incyte Genomics, Inc. DNA sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/MLN at: http://image.jnl.gov Plate: LAM11300 Row: g Column: 07 High quality sequence stop: 801.


```
|||||
Db 245 ACCCCCTGAAAAACGTGATGTGCGACAGAGAAAGGCTGAAATACACCTCA 304
Oy 307 aatcacacagactgagagaatgacagaagaggctgaagcatcaatgtaacctgtgagct 366
Db 305 AATACACACAGACTGAGAGAAATGACAGAGAGGCTGACACATTCATGTACCTGTAGCTT 364
Oy 367 ggaagagtaagaagactgctcggcagctaggtttggattcttcagttccacaagaag 426
Db 365 GGAGAGTAGAAGAGCTGCTCGGCGAGCTAGTTGGAGATTCTTCAGTTCCAAACAAAG 424
Oy 427 tctgtcatctgatacaaacctatggttaactgtgataagctgaaggaagagctcaag 486
Db 425 TCTGTCATGTGATACAAACCTATGCTTAATGATTAAGCTGAAGGAAAGAGCTCAAG 484
Oy 487 atttgattgaaatgtctctcaatctccagaagcttgaagatgaagaaactgaaaaa 546
Db 485 ATTTGGTTGAATGCTCTCTTCAATCTCCGAAAGTCTGAAGATGATGACAAACTGAAAA 544
Oy 547 gagaagaagagcgaatttggaattgcaaaagtcaagctggaactggaaccacagaagatag 606
Db 545 GAGGAAGAGAGCATTTGGATTGTGCACAGTTCAAGCTGACCTGGAACCAACAGAGAGTAC 604
Oy 607 agaagcaaaagaagaagaagaagcagagcgtttggattgctcctgatagaagttcctga 666
Db 605 ACAGGC-AAGAAAGAGAAAAAGACAGAGCGCTTTGGGATTGCTGATGAAGTTCTCTGA 663
Oy 667 tacttctgtctcagtggttttccattctctctctctctctctgtgacatatatgcca 726
Db 664 TACTTTCTTTTCCAGTG-TTTCATTTCTCTCTCTCTCTTGTGATGATATATAGCTT- 721
Oy 727 aatgcacagcatgltgctcactgctcctgcctcgaatgaagagc--atgtacccacagta 784
Db 722 AATGCACAGCATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 781
Oy 785 catcatgacactgctgagcagcaattgacttatgtcgtt 823
Db 782 ACATCCTTAACGTGCGGAGCAG-TTGAAATATTGCTGTT 819

RESULT 10
Bi870282 774 bp mRNA linear EST 11-OCT-2001
LOCUS 603393788F1 NIH_MGC_90 Homo sapiens cDNA clone IMAGE:5403909 5',
DEFINITION mRNA sequence.
ACCESSION Bi870282
VERSION Bi870282.1 GI:16043955
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
1 (bases 1 to 774)
NIH-MGC http://mgi.mcl.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cga@bbs-rcmail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (ILNI)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/ILNI at:
http://image.llnl.gov
Plate: LHAM12029 row: p column: 22
High quality sequence stop: 774.
Location/Qualifiers
1. 774
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5403909"
/clone_lib="NIH_MGC_90"
```

```
/tissue_type="adenocarcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/note="Organ: Liver; Vector: pCMV-SPORT6; Site: 1: NotI;
Site: 2: SalI; Cloned unidirectionally; oligo-dT primed.
Average insert size 1.7 kb. Library enriched for
full-length clones and constructed by Life Technologies.
Note: this is a NIH_MGC Library."
BASE COUNT 254 a 145 c 201 g 173 t 1 others
ORIGIN

Query Match 83.1%; Score 725.4; DB 10; Length 774;
Best Local Similarity 98.6%; Pred. No. 8.3e-141;
Matches 763; Conservative 0; Mismatches 7; Indels 4; Gaps 3;

Oy 11 ggttaaagaatgctgcagcagcagcgtgtgagctcccaatgaagcttccgaactcaag 70
Db 1 GGTAAACAATGGCGACGACGAGCGGTGAGCTCCATTAAGCTTCCGAACTAAAG 60
Oy 71 caaagaatgcttgcgtgtgtgttggagaccagaaggaataaagcaagatctatccacaga 130
Db 61 CAAGATGTCTTGTGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 120
Oy 131 ctccaggaatctctgaagaacaatgctgaagaaggaggaatgaagaatgtactggga 190
Db 121 CTCACGCGATATCTTGAAAGACATGCTGAAGAGGAGCAAAAGTGAAGATGTACTGGGA 180
Oy 191 gattgaagaagaagaagaagaagaagaagccattgagctccctgtcgaagaagaagaagcc 250
Db 181 GATGAAGACAGAGGAAGAAACAAAGCCCATTTGACCTCTCTGTCAAGAGAGAACCC 240
Oy 251 cctgaaaaaactgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 310
Db 241 CCTGAAAAAAGCTGTGATGTGAGGACAGAGAAAGAGTGTGTAATTAATCTGAATAA 300
Oy 311 ccacagactgagagaatgcaagaagaaggctgaagattcaatgtaacctgtgagctggag 370
Db 301 CCACAGACTGAGGAATGCAAGAGAGGCTGAACGATTAATGTACTGTGAGCTTGAGG 360
Oy 371 agtaagaagctgtcctgcgagcagctgaagtttggaattcttcagttccacaagaagctg 430
Db 361 AGTAAGAAAGCTGTGCTGCGCAGCTGAGGATTGCTTTCAGATTCCAAACAAAGGCTG 420
Oy 431 tcaatctgaatacaaacctatggtttaaactggaataagctgaagaagaagctcaagaatt 490
Db 421 TCATCTGATTAACAACCTATGTTAGTTAGTTAGTTAGTTAGTTAGTTAGTTAGTTAGTT 480
Oy 491 ggttgaatgtctctcaatctccagaagaagctgaagaatgaagaactgaaaaaagag 550
Db 481 GGTTCGAATGTCTCTTCAATCTCCAGAAAGTCTGAAGATGATGAGAACTGAAGAGAG 540
Oy 551 aaggaagcatttggaattgtccaagttcagctggaactggaagccacagaagatatagag 610
Db 541 AAGGAGCGATTTGGGATTTGCTCAGCAAGTTCAAGCTGGAAGCTGGAAGGATACAGAG 600
Oy 611 gcaaaagaagaagaagaagaagcagcgtttggattgctgtatga--aaattctgtatag 669
Db 601 GCAAAACAAGAGAAAGAGACAGAGCGCTNMGGAATTGCTGATGAACAAGTTCTGTATAC 660
Oy 670 ttctcg--tttccagtggtttccaatctctctctctctc--ttgtcaatatatgacct 726
Db 661 TTTCTGTGTTCTCCAGTGTGTTTCCATTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 720
Oy 727 aatgcacagcatgltgctcactgctcctgcctgcaatgaagagagcatgtatcccca 780
Db 721 AATGCACAGCATATGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 774

RESULT 11
Bi520421 817 bp mRNA linear EST 29-AUG-2001
LOCUS 603071604F1 NIH_MGC_119 Homo sapiens cDNA clone IMAGE:5163673 5',
DEFINITION mRNA sequence.
```


ACCESSION B1520421
 VERSION B1520421.1 GI:15345213
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
 REFERENCE 1 (bases 1 to 817)
 AUTHORS NIH-MGC http://mgc.nci.nih.gov/
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgabbs-remail.nih.gov
 Tissue Procurement: Life Technologies, Inc.
 cDNA Library Preparation: Life Technologies, Inc.
 DNA Sequencing by: Incyte Genomics, Inc.
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
 http://image.llnl.gov
 Plate: LLML1406 row: 9 column: 02
 High quality sequence stop: 809.
 Location/Qualifiers
 1. 817
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone_1ib="IMAGE:5163673"
 /clone_1lb="NIH_MGC_119"
 /tissue_type="medulla"
 /lab_host="DH10B"
 /note="Organ: brain; Vector: PCMV-SPORT6; Site_1: NotI;
 Site_2: EcoRV (destroyed); RNA source normal medulla from
 anonymous male age 27. Library is oligo-dT primed and
 directionally cloned (EcoRV site is destroyed upon
 cloning). Average insert size 1.3 kb, insert size range
 0.9-3 kb. Library is normalized and enriched for
 full-length clones and was constructed by C. Gruber
 (Invitrogen). Research Genetics tracking code 013. Note:
 this is a NIH-MGC library."
 BASE COUNT 256 a 154 c 227 g 180 t
 ORIGIN
 Query Match 82.6%; Score 721; DB 10; Length 817;
 Best Local Similarity 97.7%; Pred. No. 6.8e-140;
 Matches 763; Conservative 0; Mismatches 15; Indels 3; Gaps 3;
 QY 1 tgaagtgaagggttaacaagatgacgacgagcggtgagctcacaataagcttaagctgc 60
 |||||||
 DB 37 TCGAGTGAAGGGTAAACAAGATGCGACCGAGACGCTGAGCTCCTAAGCTAAAGCTTGC 96
 QY 61 cgaactaagaagaatgctctgctgctgtgtgttgagagccaaagggaataagcaagctc 120
 |||||||
 DB 97 CGAAGTAAAGCAAGAAATGCTCTGCTCGGTGGAGACCAAGGCAATAAAGCAAGATCT 156
 QY 121 tatcacagactccagcagcatatcttgaagaacatgctgaagaaggagcaatgaagaaga 180
 |||||||
 DB 157 TATCCACAGATCCAGGATATCTTTGAAGAATGCTGAAGAGAGCAATTAAGAAGA 216
 QY 181 tgaactgaggagatgaacacagagagaagaacaagccatlgagctccctgtcaaga 240
 |||||||
 DB 217 TGTAAGTGGAGATGAACAGAGCAAGAAAGAAAGCCCATGTGAGCTCCCTGTCAAGA 276
 QY 241 ggaagaacccccctgaaaaaaactgttgtatgtgagcagcagagaagaagaagtgtgaaataac 300
 |||||||
 DB 277 GGAAGAACCCCTTAAATAACTGTGTGATGTGACAGAGAGAAAGAGTGTGAATAATAC 336
 QY 301 atctgaataccacagactgagagatgcagaagaaggctgaacattcaatgtacctgt 360
 |||||||
 DB 337 ATCTGAATATCCACAGACTGAGAGATGCAAGAGAGGCTGACATTCATGTACCTGT 396
 QY 361 gagcttgagagatgaagaagctgctcgggcagctaggtttgggaattcttcagttccaac 420
 |||||||

DB 397 GAGCTTGAGAGTAAGAAAGCTGCTCGGGACGCTAGGTTTGGAGTTTCTTCAGTTCCAAC 456
 QY 421 aaaagctctgcatacgtataacaaccatgattgaacttgataagctgaagaagagc 480
 |||||||
 DB 457 AAAGGCTGTGATCTGATTAACAACTATGTTAACTTGATAGCTGAAGAGAAAGAGC 516
 QY 481 tcaaatgttgattgataatgctcttcacatccacagaagctcgaagaatgaagaact 540
 |||||||
 DB 517 TCAAGATTTGGTGGTGAATGCTCTTCAATCTCAGAAAGCTGAAGATGATGAAGAACT 576
 QY 541 gaaaagaaggaagagcagattggatgtgtcacaagttcagctggaactggaaccacaga 600
 |||||||
 DB 577 GAAAAGGAGGAGAGGAGGATTTGGATGTTCACAAGTTCACTGAACTGAACACCAAGA 636
 QY 601 ggtatcacaggcagaagaagagaaaagagcagcagcttggagtt-gccatgaagaag 659
 |||||||
 DB 637 GGATTCAGAGGCAAGAGAGAGAAAGAGCAGACGCTTGTGGATTTGGCTGATGAAGAG 696
 QY 660 ttctgtactcttctgtctcagtgcttccatctctcctctctctgtgtcaca-ta 718
 |||||||
 DB 697 TTCTGATACCTTCTGTTCTCCAGTGTTCATTTCTCTCTCTCTCTCTCTGTCACATTA 756
 QY 719 tatgtctaatactgacagatcatgtgc-taagctctgcctcgcaatgaggagcatgacc 777
 |||||||
 DB 757 TATGCTTAATTTGCCAGTCAATGTGCTTACGCTCTGCTCCGATGAGGAGACATTTGAC 816
 QY 778 c 778
 DB 817 c 817
 RESULT 12
 BG493148
 LOCUS 744 bp mRNA linear EST 27-MAR-2001
 DEFINITION 602541829F1 NIH_MGC_59 Homo sapiens cDNA clone IMAGE:4672974 5',
 mRNA sequence.
 ACCESSION BG493148
 VERSION BG493148.1 GI:13454660
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
 REFERENCE 1 (bases 1 to 744)
 AUTHORS NIH-MGC http://mgc.nci.nih.gov/
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgabbs-remail.nih.gov
 Tissue Procurement: ATCC
 cDNA Library Preparation: CLONTECH Laboratories, Inc.
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Incyte Genomics, Inc.
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
 http://image.llnl.gov
 Plate: LLML490 row: 1 column: 07
 High quality sequence stop: 731.
 Location/Qualifiers
 1. 744
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone_1ib="IMAGE:4672974"
 /clone_1lb="NIH_MGC_59"
 /tissue_type="mucoepidermoid carcinoma"
 /lab_host="DH10B (T1 phage-resistant)"
 /note="Organ: lung; Vector: pBNR-LIB (Clontech); Site_1:
 SfiI (ggccgcctgcgc); Site_2: SfiI (ggccatcatgccc);
 Double-stranded cDNA was prepared from cell line RNA. 5'
 and 3' adaptors were used in cloning as follows: 5'
 adaptor sequence: 5'-CACGGCCATTTATGGCC-3' and 3' adaptor
 sequence: 5'-ATTCTAGAGCGCCAGCGCCGACATG-3' (30)BN-3'
 (where B = A, C, or G and N = A, C, G, or T). Average

Insert size 1.65 kb (range 0.9-4.0 kb). 15/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Palo Alto, Ca). Note: this is a NIH_MGC Library."

BASE COUNT 248 a 131 c 200 g 164 t 1 others
ORIGIN

Query Match 81.7%; Score 713; DB 10; Length 744;
Best Local Similarity 98.4%; Pred. No. 3,1e-138;
Matches 730; Conservative 0; Mismatches 11; Indels 1; Gaps 1;

```
OY 1 tggagtgagggttaacaagatgacacgagacgggtgagctccataagctaaagcttgc 60
DB 4 TGGAGTGGAGGGGTACAAAGATGCGACCGAGCGGTGGAGCTCCATTAAGCTTAAGCTTGC 63
OY 61 cgaactaaagcaagaatgtcttcctcgtggtttggaagacaaaggaataaagaatct 120
DB 64 CGAACTAAAGCAAGATGTCTTGCTGTGTGGAGACCAAGGGAATTAACCAAGATCT 123
OY 121 tatccacagactccagggcatctctgaagaacatgctgaagaggaggaacaatgaagaaga 180
DB 124 TATCCACAGACTCCAGGCACTATCTTGAAGACATGCTGAAGAGGAGCCAAATGAAGAGA 183
OY 181 tgtactggagatgaacacagaggaagaacaaagcccatctgagctccctgtcaaga 240
DB 184 TGTACTGGAGATGAACAGAGAGAAAGAAACAAACCCATTGAGCTCCCTGCAAGA 243
OY 241 ggaagaacccccgtgaaaaaacgtgtgagtgagcagagagaagaagatgtaaaattac 300
DB 244 GGAAAGACCCCTGAAAAAAGTTGATGTGGCAGCAGAGAAAGTAAGTGTAATAATTAC 303
OY 301 atctgaatatccacagactgagagagatgacagagagggtgaagcatcaatgtaacctgt 360
DB 304 ATCTGAATATCCACAGACTGAGAGAGATGCAGAGAGGCTGAACATTAATGTACTCTGT 363
OY 361 gagcttgagagtaagaagactgctcgggcaagctagtggttgattcttcagttccaac 420
DB 364 GAGCTTGGAGATGAAGAAAGCTGCGGCGACCTAGTTGGATTTCTTCAGTTCCAAAC 423
OY 421 aaaaagctgtcatctgttaacaacctaagtttaacttggttaagctgaaagaaagagc 480
DB 424 AAAAGGCTGTATCTGATTAACAACCTATGTTAACTTGATGAAGCTGAAGAAAGAGAC 483
OY 481 tcaaaagatttggttgaatgctctcccaatccacagaagctgaagatgaagaaact 540
DB 484 TCAAAAGATTGTGTTGAATGTCTCTCAATCTCCAGAAAGCTGGAAGATGATGAGAAAT 543
OY 541 gaaaaagaggaagagcgatttggagatgtaacaagttcaagctgaagctgaacaacaga 600
DB 544 GAAAAAGAGGAAGAGCGCA-TTGGGATTCTCAAGATTGAGCTGGAACGGAACACACAGA 602
OY 601 ggaatcagaaggaagaagaagaagaagaagcagcttgagatgctcgttgtaaaagt 660
DB 603 GGAATCAGAGGGAAAGAAAGAGGAAAGACAGAGCGCTTGGAGANTGCTTGTAAGAAAT 662
OY 661 tccataactctgtctcaccagtttcccaatctctcctcctctctctgtgacatatca 720
DB 663 TCCATATACTTCTGTCTGCCAGGTGTTTCCATTTCTCTCTTCTTGCGGTACACATATA 722
OY 721 tgcctaaatgacagatcatgtg 742
DB 723 TGCCTAATGCACAGTCATGTG 744
```

KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
REFERENCE NIH-MGC <http://mgc.ncl.nih.gov/>.
AUTHORS National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cga@bbs-remail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LMNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LMNL at: <http://image.llnl.gov>
Plate: LLM10420 row: h column: 05
High quality sequence stop: 759.

FEATURES

source

1..974

/organism="Homo sapiens"

/db_xref="taxon:9606"

/clone="IMAGE:4521268"

/clone_lib="NIH_MGC_92"

/tissue_type="embryonal carcinoma, cell line"

/lab_host="DH10B (phage-resistant)"

/note="Organ: testis; Vector: pCMV-Sport6; Site_1: NCI; Site_2: Sall; Cloned unidirectionally; oligo-dr primed. Average insert size 2.5 kb. Library enriched for full-length clones and constructed by Life Technologies. Note: this is a NIH_MGC Library."

BASE COUNT 326 a 218 c 245 g 185 t
ORIGIN

Query Match 81.5%; Score 711.8; DB 10; Length 974;
Best Local Similarity 98.1%; Pred. No. 5.5e-138;
Matches 741; Conservative 0; Mismatches 12; Indels 2; Gaps 2;

```
OY 14 aacaagatgagcgacccgagacggttgagctccataagctaaagcttgcggaactaaagcaa 73
DB 1 AACCAAGATGGCAGCCAGACGGGTGAGCTCCATTAAGCTTAAGCTTCCCAATAAGCAA 60
OY 74 gaatcctgtccgctggttgtagaaccaaggaataaagcaagatcttaaccagactc 133
DB 61 GATGTCTTGCTGTGCTGTTTGAGAACCAAGGAAATTAAGCAATCTTTCACAGACTC 120
OY 134 cagcatalcttgaagaacatgctgaagaagaggaacaaatgaagaatgtactggagat 193
DB 121 CAGCATATCTTGAAGAACATCTGTAAGAGAGCAAAATGAAGAGATGTAAGTGGAGAT 180
OY 194 gaaacagaggaaagaagaacaaagcccatgtgctccctgttaagaggagaagacccct 253
DB 181 GAACAGAGAGGAAGAAACAAAGCCCATTTGAGCTCCCTGTAAGAGGAAAGACCCCT 240
OY 254 gaaaaaacgttgaatgtgacagcagagaagaagatggtgaataatcatctaaatacca 313
DB 241 GAAAAAACGTGATGTGTGCGACAGAGAAAGAGTGTAAATTAATCATCTAAATACCA 300
OY 314 cagactgagaagaatgcaagaagaggctgaacgatccaatgtaactcgtgagcttgagagt 373
DB 301 CAGACTGAGAGAAATGCAGAGAGAGGCGCTGAACGATTAATGTACTGAGCTTGGAGAT 360
OY 374 aagaagctgtctcgggcagctaggttgggatttctcaagttccaaacaaaggtctgtca 433
DB 361 AAGAAAGCTGTCTCGGCGACCTAGGTTGGATTTCTTCAAGTTCCAAACAAAGCTGTGCA 420
OY 434 tctgataaacaacctatggttaacttgatgaagcgtgaaggaagagctcaagatctgt 493
DB 421 TCTGATTAACAACCTATGTGTTAACTTGATTAAGCTGAAGAGAAAGCTCAAGATTTGGT 480
```

QY 494 ttgaatgtctcttcaatctccagaagaatcttgaagaatgatgagaagaactgaaagaagagag 553
|||||
Db 481 TTGAATGTCTCTTCAATCTCCAGAAAGTCTGAATGATGTGAAGAACTGAAAGAGAGAG 540
QY 554 gaagcatttggagatgtcacaagatcagctggaacttggaaccacagagagatcacagagca 613
|||||
Db 541 GAGGGAATTTGGGATGTTCACAAAGTTACAGCTGGAACTGGAAACACAGAGAGATACAGAGCA 600
QY 614 aaagaagagga-aaagaacagaagcgcttggagatgctggaagaagtcttgatctt 672
|||||
Db 601 AAGAAGAGGACCAAGACAGAGCGCTTGGGATTCCTGATGACGAGATTCCTGATACCTT 660
QY 673 ctgtctccacagtgcttccatcttctcctctcttctgtgtacatatatgcttaactgca 732
|||||
Db 661 CTGTTCACAGTGTTCATCT 719
QY 733 caatcatgtcctcaagctcgtcgtcgtcgaatgaggg 767
|||||
Db 720 CAGTCATGTGCTCCACGTCTGCTCTGCAATGAGG 754

RESULT 14
Bg720065 781 bp mRNA linear EST 08-MAY-2001
LOCUS Bg720065 602691562F1 NIH_MGC_97 Homo sapiens cDNA clone IMAGE:4823943 5',
DEFINITION mRNA sequence.
ACCESSION Bg720065
VERSION Bg720065.1 GI:13999252
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 781)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgabs-remail.nih.gov
Tissue Procurement: Miklos Palokovits, M.D., Ph.D.
cDNA Library Preparation: Michael J. Brownstein (NHGRI), Shiraki
Toshiyuki and Piero Carninci (RIKEN)
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNLN at:
http://image.llnl.gov
Plate: LLM10734 row: k column: 16
High quality sequence stop: 765.
Location/Qualifiers
1. 781
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:4823943"
/clone_1id="NIH_MGC_97"
/lab_host="DH10B"
/note="Organ: testis; Vector: pBluescript (modified
pBluescript KS+); Site_1: BamHI; Site_2: SalI; XhoI (gtcagag
); Oligo-dT primed using primer 5'-TTTTTTTTTTTTTTVN-3',
size-selected for average insert size 2.2 kb and
normalized to 10^5. This is a primary library enriched
for full-length clones and constructed using the
Cap-trapper method (Carninci, in preparation). Library
constructed by M. Brownstein (NIH/NHGRI, National
Institutes of Health). Note: this is a NIH_MGC Library."

BASE COUNT 256 a 142 c 210 g 173 t
ORIGIN

Query Match 81.4%; Score 710.6; DB 10; Length 781;
Best Local Similarity 98.7%; Pred. No. 9.8e-138;
Matches 769; Conservative 0; Mismatches 4; Indels 6; Gaps 5;

QY 1 tggagtggggttaacaagaatgagcaccgagacggtgagctccataaagtaaacgttgc 60
|||||
Db 8 TGGAGTGGGGGTAAACAAGATGGCGACCGAAGCGGTGAGCTCCATAAGCTAAAGCTTGC 67
QY 61 cgaactaaagcaagaatgtctgtcgttgttggagaccaaaggaataaagcaagatct 120
|||||
Db 68 CGAAGTAAAGCAAGAAATGCTTTCCTCGTGC--TTGAGAGACCAAGGAATTAAGCAAGATCT 126
QY 121 tatccacagactcgaagatattcttgaagaacatgcttgaagaagaggaatgaaatgaaga 180
|||||
Db 127 TATCCACAGACTCCAGGATATCTTGAAGAACATGCTGAAGAGAGGCAAAATGAAGAAGA 186
QY 181 tgtactggagatgaacaagaggaagaacaacacccattagctccctgtcaaga 240
|||||
Db 187 TGTACTGGGATGTAAGAACAGAGGAAGAAAGAACAAAGCCATTGAGCTCCCTGTCMAAGA 246
QY 241 ggaagaacccccctgaaaaaactgttgaatgtgtgagcagagaagaagaatgtgaataatcac 300
|||||
Db 247 GGAAGAACCCCTGTAAGAAACTGTTGATGTGGCAGCAGAGAAAGAGTGTGAATAATTAC 306
QY 301 atctgaaataccacagactgagagaatgcaagaagagcttgaacatgtaacctgt 360
|||||
Db 307 ATCTGAATACCCACAGACTGAGAGAAATGCAAGAGGGCTGAACGATTCAATGTAACCTGT 366
QY 361 gaacttggagagtaagaagactgtctcggcagctaggttggatttctcaagttccaac 420
|||||
Db 367 GAGCTTGAGAGTAAGAAAGCTGCTCGGCAAGCTAGGTTTGAGATTCTTCAAGTTCCAAC 426
QY 421 aaaagtcgtcatctgtatcaacaaactatgttacttgaataagcttgaagaagaagc 480
|||||
Db 427 AAAAGTCTGTCACTGTATCAAAACCTATGTTAACTTGGATGAAGTGAAGAAAGAGC 486
QY 481 tcaagaatttggttgaatgtctcttcaatctcagaagaagctcgaagaatgttgaagaact 540
|||||
Db 487 TCAAGATTTGTGTTGAATGTCTCTCAATCTCCAGAAAGTCTGAAGTGTGAAGAACT 546
QY 541 gaaaagaaggaagagcagatttgatgtcacaaagctcagctgaactggaacacacaga 600
|||||
Db 547 GAAAAAGAGAGAGAGCGATTTGGGATTGTCAAGATTACACTGGAATGGAACACACAGA 606
QY 601 ggaatcagaagcagaagaaggaagaagcagagcgttggatgtcgtcatgaaagt 660
|||||
Db 607 GGATTCAGAG-GGCAAAAGAGAGGAAAGAGCAGAGCGCTT--GGGATTTGCTGATGAAAGT 663
QY 661 tccgatacttctgttccagtggttttcca-ttctctctcttcttcttggtaacatat 719
|||||
Db 664 TCTGTATCTTCTGTCTCTCCAGTGTCTTCATTTCTCTCTCTCTCTCTCTCTCTCTCTCATAT 723
QY 720 atgcttaaatgcaagatcatgtgcctacagctcgtcgtcgtcgaatgagagcatgtacc 778
|||||
Db 724 ATGCCTAATGCAACAGATGATGTGCTACGTCTG-CTCGCAATGAGAGCATGTACCC 781

RESULT 15
Bg289677 1139 bp mRNA linear EST 21-FEB-2001
LOCUS Bg289677 602384642F1 NIH_MGC_93 Homo sapiens cDNA clone IMAGE:4513499 5',
DEFINITION mRNA sequence.
ACCESSION Bg289677
VERSION Bg289677.1 GI:13045679
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 1139)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgabs-remail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Incyte Genomics, Inc.
 Clone distribution: MCC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
<http://image.lnl.gov>
 Plate: LLM10400 row: d column: 12
 High quality sequence stop: 697.

FEATURES

source

1. 1139
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone_image="4513499"
 /clone_lib="NIH_MGC_93"
 /issue_type="transitional cell papilloma, cell line"
 /lab_host="DH10B (phage-resistant)"
 /note="Organ: bladder; Vector: pCMV-SPORT6; Site: 1; NotI;
 Site: 2; SalI; Cloned unidirectionally; oligo-dr primed.
 Average insert size 1.7 kb. Library enriched for
 full-length clones and constructed by Life Technologies.
 Note: this is a NIH_MGC Library."

BASE COUNT 380 a 224 c 315 g 219 t 1 others
 ORIGIN

Query Match 80.8%; Score 705.8; DB 10; Length 1139;
 Best Local Similarity 94.7%; Pred. No. 9,6e-137;
 Matches 785; Conservative 0; Mismatches 37; Indels 7; Gaps 5;

QY 9 ggggtaacaaagatgagccgagagcggtgagatcctaagtaagcttgcgaactaa 68
 DB 1 GGGGTAAACAGATGGCGACGAGCGGTGAGCTCCATAGCTTAAGCTTGGCGAACTAA 60
 QY 69 agcaagaatgtctgtcgtggtttggaagcaaggaataagcaagaatctatccaca 128
 DB 61 AGCAGAAATGTCTTCTGCTGTTGGAGACCAAGGATTAAGCAGATCTTATCCACA 120
 QY 129 gactccaggcatatcttgaagaacatgctgaagaggaagcaaaatgaagaagatgtactgg 188
 DB 121 GACTCCAGCATATCTTGAAAGACATGCTGAAGAGGAGCAATGAAAGATGTACTGG 180
 QY 189 gagatgaacaaagagaagaacaaagccattgaagtcctctgtcaagaaggaagac 248
 DB 181 GAGATGAACAGAGAGAGAAACAAACCCATTGAGCTCCCTGCAAGAGAGAAAC 240
 QY 249 cccctgaacaaactgtgtgtgagcagcagagaagaagtggtgaatctacatctgaaa 308
 DB 241 CCCCTGAACAACTGTTGATGTGGCAGCAGAGAAAGTGTGAATAATTACATCTGAAA 300
 QY 309 taacacagaactgaagaagatgagaagaaggtctgaacgatccaatgactgtgagcttgg 368
 DB 301 TACCACAGACTGAGAAATGAGAAAGGGCTGAACGATTCAATGTACTGTGAGCTTGG 360
 QY 369 aagaagaagaagctctcgggagctaggtttggagattcttcagttccacaagaagctc 428
 DB 361 AGAGTAAGAAACTGCTCGGCAAGCTAGGTTGGGATTTCTTCAGTTCCAAACAAAGGTC 420
 QY 429 tgtcatctgaatacaaacctatggttaacttgaataagctgaaggaagaagctcaaaagt 488
 DB 421 TGTCAATCTGATAACAACCTATGTTAACTTGATTAAGCTGAAGGAAGAGCTCAAAAGAT 480
 QY 489 ttggtttgaatgtctctccaatctccagaagatctgaagaatgaatgaagaactgaagaaga 548
 DB 481 TTGGTTTGAAATGTCTTCAATCTCCAGAAAGTCTGAAGATGATGAGAAACTGAAAAAGA 540
 QY 549 ggaagaagagatlttggatgttcacaagtctgagctggaactggaaccacagaagatlag 608
 DB 541 GGAAGAGAGGATTTGGAGATTGTACAAAGTTCAAGCTGGAACCTGAACACAGAGATACAG 600
 QY 609 aggcacaagaagaagaagaagcagagcgcttggagatgcccgaatgaagaatcttcgata 668
 DB 601 AGGCAAGAAGAGGAAAGAGCAGAGCGCTT--GGGATTTGCTGATGAAAAAGTT-CTGATA 657
 QY 669 cttctgtctccagtggtttccattctctcc-ttctctgtgtcacacalatagcctaa 727

DB 658 CTTTCGTTCTCCAGAGTTTTCATTTCTCTCTTCTTGTGACACATATATTGCTTA 717
 QY 728 atgcacacatgctgctactacgtccctgacctgcgaatga-9gagacatgtacccca--ggta 784
 DB 718 AATGCCAGTCATGTGCTACTAGTCTGCTGCTGCGCAATGAGGGAGCATGTTCCCATGCTAC 777
 QY 785 catcatgaactgcggcagcaagtttgaactatgtctgttcagctttaa 833
 DB 778 ACTCCCTTGACTGCGGCGCGGTTTGGCTAAATTTGCGGTTCAACGCTTA 826

Search completed: June 19, 2002, 13:36:50
 Job time: 6358 sec